

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1-2. (Canceled)

3. (Previously Presented) A system according to claim 5, in which the control means includes means for pressurizing the liquid extinguishing agent in dependence on the pressure of the gas.

4. (Previously Presented) A fire and explosion suppression system, comprising:
a source of pressurised liquid extinguishing agent,
a source of a pressurised gas,
mist producing means connected to receive a flow of the liquid extinguishing agent at a mass flow rate thereof to produce a mist therefrom,
mixing means for mixing the already-produced mist into a flow of the pressurised gas to produce a discharge in the form of a two-phase mixture comprising a suspension of droplets of the mist in the pressurised gas,

wherein the flow of the pressurised gas has a mass flow rate and the pressurised gas is pressurised by being stored under pressure which thus reduces during the flow thereof and reduces the mass flow rate of the gas,

and

control means including means for applying the pressure of the stored gas to pressurise the liquid extinguishing agent whereby the reducing applied pressure correspondingly reduces the mass flow rate of the liquid extinguishing agent so as to control the ratio of the mass flow rate of the liquid extinguishing agent to the mass flow rate of the pressurised gas towards such a value as to tend to produce a constant droplet size distribution in and for substantially the duration of the discharge.

5. (Previously Presented) A fire and explosion suppression system, comprising:
a source of pressurised liquid extinguishing agent,
a source of a pressurised gas,
mist producing means connected to receive a flow of the liquid extinguishing agent to produce a mist therefrom,
mixing means for mixing the already-produced mist into a flow of the pressurised gas to produce a discharge in the form of a two-phase mixture comprising a suspension of droplets of the mist in the pressurised gas, and
control means for controlling the ratio of the mass flow rate of the liquid extinguishing agent to the mass flow rate of the pressurised gas towards such a value as to tend to produce a constant droplet size distribution in and for substantially the duration of the discharge, wherein the control means includes controllable valve means for adjusting the mass flow rate of the liquid extinguishing agent during the discharge.
6. (Withdrawn) A system according to claim 5, in which the valve means comprises a controllable metering valve means and the control means includes means for adjusting the metering valve means in dependence on the mass flow rate of the gas.
7. (Previously Presented) A system according to claim 5, in which the valve means comprises a controllable metering valve means and the control means includes means for adjusting the metering valve means in dependence on the pressure of the stored gas.
8. (Withdrawn) A system according to claim 5, in which the controllable valve means comprises a plurality of parallel flow paths for feeding the liquid extinguishing agent to the mist producing means and having respective flow orifices of different cross-sectional area, in combination with selection means for selecting any one or more of the flow paths.
9. (Previously Presented) A system according to claim 5, in which the control means includes means for controlling the pressure of the pressurised liquid extinguishing agent.

10. (Withdrawn) A system according to claim 9, in which the control means includes a pump for pressurising the source of the liquid extinguishing agent.

11. (Withdrawn) A system according to claim 10, in which the control means includes means responsive to the mass flow rate of the gas for adjusting the pump to vary the pressure of the source of the liquid extinguishing agent.

12. (Previously Presented) A fire and explosion suppression system, comprising:
a source of pressurised liquid extinguishing agent,
a source of a pressurised gas,
mist producing means connected to receive a flow of the liquid extinguishing agent to produce a mist therefrom,
mixing means for mixing the already-produced mist into a flow of the pressurised gas to produce a discharge in the form of a two-phase mixture comprising a suspension of droplets of the mist in the pressurised gas, and
control means for controlling the ratio of the mass flow rate of the liquid extinguishing agent to the mass flow rate of the pressurised gas towards such a value as to tend to produce a constant droplet size distribution in and for substantially the duration of the discharge, including means for initiating the flow of the liquid extinguishing agent before initiating the flow of the gas.

13. (Previously Presented) A system according to claim 4, in which the liquid extinguishing agent is water.

14. (Previously Presented) A system according to claim 4, in which the liquid extinguishing agent is a chemical substance.

15-16. (Canceled)

17. (Canceled)

18. (Currently Amended) A fire and explosion suppression method, in which a mist of a liquid extinguishing agent is produced from a flow of the liquid extinguishing agent and is mixed into a flow of pressurised gas to produce a discharge in the form of a two-phase mixture comprising a suspension of droplets of the mist in the pressurised gas, the method including the step of controlling the ratio of the mass flow rate of the liquid extinguishing agent to the mass flow rate of the pressurised gas towards such a value as to tend to produce a constant droplet size distribution in and for substantially the duration of the discharge, wherein the pressurised gas is pressurised by being stored under pressure which thus reduces during the flow thereof and reduces the mass flow rate of the gas, and wherein ~~the controlling step includes the step of~~ said controlling of said ratio to produce said constant droplet size distribution in and for substantially the duration of the discharge is achieved at least partially by applying the pressure of the stored gas to pressurise the liquid extinguishing agent whereby the reducing applied pressure correspondingly reduces the mass flow rate of the liquid extinguishing agent as the mass flow rate of the gas undergoes said reduction thereof.

19-23. (Canceled)

24. (Previously Presented) A fire and explosion suppression method, in which a mist of a liquid extinguishing agent is produced from a flow of the liquid extinguishing agent and is mixed into a flow of pressurised gas to produce a discharge in the form of a two-phase mixture comprising a suspension of droplets of the mist in the pressurised gas, the method including the step of controlling the ratio of the mass flow rate of the liquid extinguishing agent to the mass flow rate of the pressurised gas towards such a value as to tend to produce a constant droplet size distribution in and for substantially the duration of the discharge, including the step of initiating the flow of the liquid extinguishing agent before initiating the flow of the gas.

25. (Previously Presented) A method according to claim 18, in which the liquid extinguishing agent is water.

26. (Previously Presented) A method according to claim 18, in which the liquid extinguishing agent is a chemical substance.

27-29. (Canceled)

30. (Previously Presented) A system according to claim 4, wherein the pressurised gas is pressurised inert gas.

31. (Previously Presented) A system according to claim 18, wherein the pressurised gas is pressurised inert gas.

32. (New) A method for suppressing a fire or an explosion, comprising:
providing a source of an extinguishing liquid and a source of a pressurised extinguishing gas,
causing the liquid and the gas to flow simultaneously along a common pipe to a nozzle so that a two-phase mixture comprising droplets of the liquid suspended in the gas is discharged from the nozzle,
controlling a ratio of a mass flow rate of the liquid to a mass flow rate of the gas towards a value to produce a desired droplet size distribution in and for substantially a duration of the discharge, wherein the pressurised gas is pressurised by being stored under pressure which reduces during the flow thereof and reduces the mass flow rate of the gas, and
applying the pressure of the stored gas to pressurise the liquid, whereby the reduced applied pressure correspondingly reduces the mass flow rate of the liquid extinguishing agent.

33. (New) A method according to claim 32, wherein the pipe branches to supply the liquid and the gas to a plurality of nozzles.